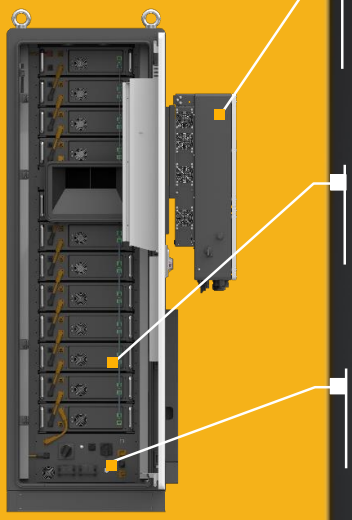


# BPZ Cube 60

## Compact energy storage air-cooled

The ultimate all-in-one solution for residential and commercial applications. Energy storage with a hybrid three-phase inverter allows direct connection with a photovoltaic installation and optional charging of electric vehicles via an integrated AC charger.



Three-phase hybrid inverter (option - AC charger)

Precision air conditioning

Battery module

Controller

Main control unit



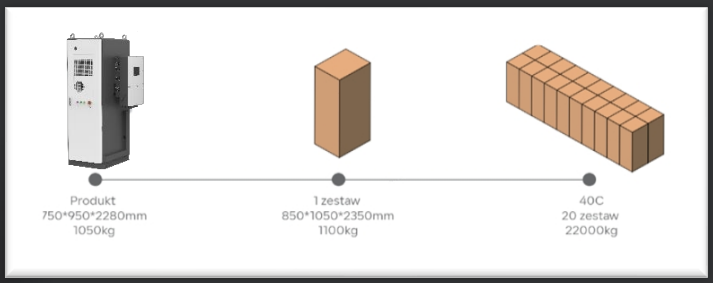
**Compact** c h a s s i s **:** standardised all-in-one design provides large storage capacity in a small footprint. System scalability by combining multiple units into a single system.

**Safety and reliability:** advanced temperature control features, an integrated fire safety system and an integral management system ensure maximum operational safety and reliability.

**High performance and longevity:** an advanced manufacturing, testing and quality control process, using the latest $LiFePO_4$ cells, guarantees long-lasting performance of up to 8,000 cycles.

**Functionality and maintenance:** integrated full EMS enables complete operation in user, service and manufacturer mode. The optional EV charger in combination with energy storage can operate at full capacity regardless of the connection power. In combination with tariffs allowing price arbitrage, significant savings can be generated.

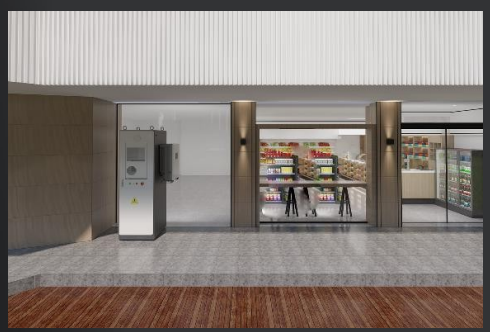
- Packaging and shipping details



| | |
|---|---|
| **Battery energy storage** | |
| Cell type | LiFePO4 / 100 Ah |
| Nominal volume | 61.44 kWh |
| Nominal voltage of the module | 51,2 V |
| System nominal voltage | 614,4 V |
| Operating voltage range | 562.5÷ 681.6 V |
| Depth of discharge (DoD) | 80% |
| Lifespan | 8000 cycles |
| Charge/discharge rate | ≤0,5C |
| Charge/discharge current | 100 A |
| Scalability | 4 modules per section, ~240 kWh |
| Cooling type | Air cooling (precision air conditioning) |
| Type of converter | Hybrid inverter |
| Fire protection system | Aerosol extinguishing |
| | |
| **AC output** | |
| Rated AC output power | 50 kW |
| Maximum AC output power | 50 kVA |
| Rated output voltage | 400 VAC |
| Output voltage range | -15%÷ 10% (adjustable) |
| Rated mains frequency | 50/60 Hz |
| Maximum mains input power | 50 kW |
| Maximum mains output current | 76 A |
| Rated mains voltage | 3 / N / PE, 230 V / 400 VAC |
| Power factor | 0.8 advance÷ 0.8 delay |
| THDi | < 3% |
| | |
| **AC output (spare)** | |
| Rated output power | 50 kW |
| Maximum AC output power | 50 kVA |
| Maximum output power | 1.5 times / 10 s |
| Rated output current | 76 A |
| Switching time | <10 ms |
| Maximum transient current | 150 A |
| THDv (under linear load) | < 2% |
| | |
| **PV output** | |
| Maximum input power | 90 kW |
| Maximum input voltage | 1100 V |
| Starting voltage | 200 V |
| Rated voltage | 620 V |
| MPPT voltage range | 180÷ 1000 V |
| Number of MPPT | 4 |
| Number of strings per MPPT | 8 |
| Maximum current per MPPT | 40 A |
| Maximum short-circuit current per MPPT | 60 A |

| | |
|---|---|
| **EV charging system (optional)** | |
| Charging type | Charging mode 3, Case B and Case A |
| Socket options | AC Type 2 (IEC 62196-2) |
| Input/output current | 32 A, three phases |
| Input/output power | 23 kW at 415 VAC |
| Input/output voltage | 380-415 VAC |
| Input frequency | 50/60 Hz |
| Cable length | 5.0 m, option: 7.5 m |
| Distribution system | TT, TN system |
| Connector type | 3P+ N+ PE |
| Certificates | IEC/EN 61851-1, IEC 61851-21-2, IEC 62196-1<br>IEC 62196-2, IEC 62109 |
| | |
| **General parameters** | |
| Dimensions (W x D x H) | 750x950x2280 mm / 29.5x37.4x89.7 inches |
| Total weight | 1050 kg / 2314.8 lbs |
| Working height | 2000 m / 6561 ft |
| Degree of protection | IP55 |
| Permissible operating temperature | -20°C÷ 50°C |
| Storage conditions | -20°C÷ 35°C<br>5%÷ 85% relative humidity, non-condensing Initial SoC: 50% |
| Systems | BMS, EMS |
| Communication | CAN, RS485, Wi-Fi, LTE |
| Warranty on cells | 10 years, extension payable from 11 to 15 years. |
| Device warranty | 4 years included, extension payable from 5th to 10th years |
| Certificates | UL1973, UL9540A, UL9540, UN38.3, MSDS |

■ Application possibilities





BPZ

**BPZ Group sp. z o.o.**
Tatów 7A, 76-039 Biesiekierz, Poland

**www.bpz.com.pl**
**office@bpz.com.pl**